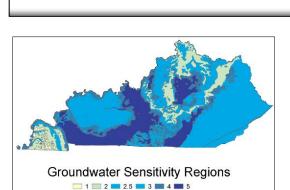
Data Analysis

<u>GIS & Data Analysis</u> staff fulfill numerous requests from the division director, as well as other division staff, for statistical analyses and analytical problem-solving for various division programs. Projects range from special one-time studies to annual analyses to the review of outside analyses submitted to <u>Division of Water</u>:

DOW Studies

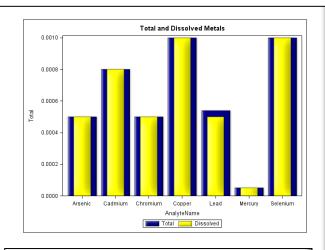
Water Quality

- o Exploration of Conductivity Values in Kentucky
- Detection of Trends in Nitrogen and Phosphorus in Effluent
- Groundwater Phosphorus Relative to Karst, Groundwater Sensitivity and Groundwater Physiographic Region
- Statistical Analysis of Groundwater Pathogen Data
- o Groundwater Analysis of E Coal Field KY



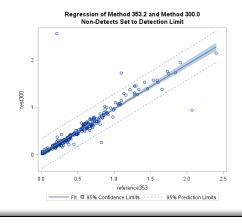
Program Effectiveness

- o 305b Category Shift Analysis
- Aquatic Life Assessed Segments Analysis
- Review of Metals from General Permit Submissions
- Comparison of Permitted Dairies and Kentucky No Discharge Operational Permits by County
- Selenium analysis of coal mine permit data
- Center Pivot Well Identification and Characterization



Methods

- Comparison of Total Metals and Dissolved Metals in Groundwater
- Kentucky Wetlands Rapid Assessment Method Seasonality Study
- Sample Size for Compliance Review of Discharge Monitoring Report Submittals
- Comparison of EPA Methods 300.0 and 353.2 for Nitrate/Nitrite



DOW Annual Analyses

- Annual 106 Data Report
- Annual Driller Certification Analysis
- Annual Pesticide Data Analysis
- Annual Well Construction Analyses

Energy and Environment Cabinet (EEC) Studies

- Selenium Characterization of Cumulative Hydrologic Impact Assessment (CHIA) Data, Phases I, II, III
- Phase I and Phase II CHIA Trend Station Analyses